



CLIMATE CHANGE & BIODIVERSITY CONSERVATION

in focus

COMBATING CLIMATE CHANGE FOR A GREENER TOMORROW

"...the threat from climate change is serious, it is urgent, and it is growing. Our generation's response to this challenge will be judged by history, for if we fail to meet it—boldly, swiftly, and together—we risk consigning future generations to an irreversible catastrophe." - President Obama, United Nations Summit on Climate Change, September 22, 2009

Global climate change affects more than polar bears and penguins. It is a real, serious human problem with direct implications for hunger, poverty, conflict, water scarcity, infrastructure integrity, sanitation, disease, and survival. Recognizing the inseparable link between climate change and development, the U.S. Agency for International Development (USAID) is proud to play a lead role in implementing President Obama's vision for global development that includes the Global Climate Change Initiative. Through this Initiative, USAID promotes strategic country-owned actions to build lasting resilience against climate impacts, reduce deforestation and land degradation, foster low-carbon growth, and promote sustainable societies, thus, meeting the adaptation and mitigation needs of developing countries.

The 2012 Climate Change Risk Atlas ranked Nepal as the 13th most vulnerable country in the world to the effects of climate change. Hosting some of the most spectacular natural landscapes and biodiversity in the world, Nepal is home to 118 ecosystems, 75 categories of vegetation, and 35 types of forest. The threat of climate change puts all these valuable resources at high risk of irreparable damage and loss. Additionally, with eight of the tallest peaks in the world, Nepal's Himalayas have the largest concentration of glaciers outside the polar region – around 3,200 glaciers and 1,466 glacial lakes. Retreating glaciers represent a serious threat to the people in Nepal, India, and Bangladesh who live in the floodplains of the many rivers that rise in these mountains. A staggering 1.3 billion people in South Asia depend on the water from the Himalayas. If the water level drops, the impacts could be catastrophic.

Furthermore, Nepal's economy is dependent on climate-sensitive industries such as agriculture, forestry, and tourism that rely heavily on natural resources, particularly that of arable land, forests, water, and biodiversity. Forest resources in particular are an integral source of livelihood; 80 percent of rural people rely on non-timber forest products

for food, health care, fuel, and shelter. These communities face even more constraints on their capacity to adapt to climate change.

To address these issues, USAID is implementing the Hariyo Ban (Green Forest) program, which responds to U.S. Government international commitments at the United Nations Framework Convention on Climate Change (UNFCCC) Conferences of the Parties, President Obama's Global Climate Change Initiative, and a U.S. Congressional mandate to biodiversity conservation. The integrated five-year program will reduce threats to biodiversity and vulnerabilities to global climate change in two biodiverse landscapes in Nepal: Terai Arc and Chitwan-Annapurna.

Some of the key expected results of Hariyo Ban Program are improved Government of Nepal (GON) and civil society capacity for sustainable management and judicious use of forest and biological resources; improved and expanded adaptation options to rural communities and natural systems; and, improved policies and plans encompassing forestry, biodiversity and climate change adaptation and mitigation in Nepal.

This project supports the GON's priorities set in the National Adaptation Programme of Action (NAPA). The GON prepared the NAPA applying a rigorous process including comprehensive vulnerability and stocktaking exercises to ensure the engagement and ownership of a wide range of stakeholders. In addition, the project fits closely into the U.S. Government's overall foreign policy goal in Nepal, which is to help build and sustain a democratic, well-governed state that responds to the needs of its people, reduces widespread poverty and conducts itself responsibly in the international system.

Together we can help prepare Nepal's people to face the challenges of climate change, and protect the resources critical to human wellbeing and prosperity for years to come.

- USAID/Nepal Biodiversity and Climate Change Working Group



Seed Bank run by villagers and local communities - a way to combat extinction of bio species preservation and cope with climate change issues. Source: Netra Sharma/USAID Nepal



Hariyo Ban program will increase the ability of target human and ecological communities to adapt to the adverse impacts of climate change

Photo Credit: © Simon de TREY-WHITE/WWF-UK



Local women from Tallo Madanapur cluster of Chauridanda Community Forest Users Group in Banke gather for participatory climate change vulnerability mapping in their area - a training provided by Hariyo Ban on Integrated Climate Vulnerability Analysis. Source: Dev Raj/Care Nepal

FROM THE EDITOR'S DESK

Dear Readers,

A few months ago I challenged USAID/Nepal's outreach staff to develop a newsletter that would highlight USAID's programs. Well... here we are on our fourth edition, and it is above and beyond my expectations. I would like to commend Stuti Basnyet and Fungma Fudong for their dedication and creative energy - the result is an outstanding newsletter. Thanks Stuti and Fungma!

One of the main topics of this month's newsletter is the celebration of Earth Day, which was launched 38 years ago and celebrated worldwide on April 22. You will read about USAID's Hariyo Ban program as well as other projects, which focus on conservation of wildlife and other activities. We are proud to be part of the global effort, along with the Government of Nepal, international and local non-governmental organizations, and committed individuals.

We hope you enjoy this edition of the newsletter and the many more to come. Please send us any suggestions you might have for us to include.

Sheila Lutjens, Deputy Mission Director, USAID/Nepal



SNAPSHOT: USAID Climate Change and Development Strategy

GOAL: The goal of USAID's Climate and Development Strategy is to enable countries to accelerate their transition to climate resilient, low emissions development to promote sustainable economic growth.

STRATEGIC OBJECTIVES: Guided by the Strategy, USAID is adopting two complementary approaches to climate change. First, we will invest in dedicated programming to tackle the risks and opportunities presented by climate change through efforts that reduce greenhouse gas emissions and build resilience to the unavoidable impacts of climate change. Second, we will integrate climate change into core development programs to foster climate resilience and lower emission approaches to development.

USAID's Climate Change and Development Strategy will pursue three strategic objectives:

1. Accelerate the transition to low emission development through investments in clean energy and sustainable landscapes for climate change mitigation;
2. Increase resilience of people, places, and livelihoods through investments in climate change adaptation; and
3. Strengthen development outcomes by integrating climate change in USAID programming, learning, policy dialogues, and operations.

POLICY CONTEXT: USAID's Climate Change and Development Strategy is guided by the larger domestic and international policy context, including Administration policy as developed in the President's Global Development Policy, the Quadrennial Diplomacy and Development Review (QDDR), USAID Forward, the USAID Policy Framework 2011-2015, the Global Climate Change Initiative, and Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance.

The Strategy also contributes to meeting the U.S. Government's international climate change commitments, including Fast Start Financing, a U.S. pledge to join other developed countries to provide funding for adaptation and mitigation approaching \$30 billion between 2010 and 2012.

IMPLEMENTATION AND STRATEGIC VISION: The strategy includes a roadmap for implementation that identifies priority countries for adaptation and mitigation investment, and describes six key areas of focus for climate change integration efforts under the leadership of USAID's Global Climate Change Coordinator. The long-term vision is that by the end of the Strategy period in 2016, USAID will be in a stronger position to program the next generation of climate change funds according to best practices, based on lessons learned from Strategy implementation, and to consider climate change more fully in the design and implementation of its broader development portfolio.

FROM THE MISSION DIRECTOR'S DESK

David C. Atteberry, Mission Director, USAID/Nepal

CLIMATE CHANGE TALK AND ACTION

It being around the time of World Earth Day 2012, and given USAID's work here in Nepal, it's only natural for me to discuss the two topics Climate Change and Biodiversity Conservation. Most of us intuitively understand the importance of these two topics yet often a full understanding and appreciation elude us. When climatology experts, related scientists, and practitioners in the field talk to me about climate change – in terms of mitigation, adaptation, carbon credits, landscapes, etc., etc., I must say my eyes often glaze over and wonder “Do these folks understand that they are not talking to an expert – that don't just automatically get it. And as a development professional, if I don't fully grasp the concept I wonder what most people outside the development sphere make of the climate change discussion. Sure, climate change awareness across the world has increased – and that's a good thing –but response to the opportunities and threats posed towards

that climate change still remains few and far between. One way of increasing awareness, perhaps, is to simplify the discussion around climate change in simple, layman terms.

And so this month, in commemoration of World Earth Day, we launched a photo competition—Earth and YOU—in collaboration with our long-time partner in Nepal, the World Wildlife Fund. The idea was simple: using photos—a highly visual, easy-to-understand medium—to get people talking about and acknowledging the need for urgent response to climate change, while also sharing Nepal's experiences in biodiversity conservation and challenges associated with climate hazards. The competition culminated with a photo exhibition at the prestigious Siddhartha Art Gallery in Kathmandu where the winners were announced in the two categories under which photos were solicited – Climate Reality and Hariyo Ban Nepal Ko Dhan. It was a good show



with some truly amazing pictures on display.... Nepal's role and significance in being part of the global solution to climate change is indisputable. We do not need a crystal ball to tell us that we must act quickly and effectively to help the country prepare for the wide-ranging, long-lasting environmental challenges. Without effective adaptation to climate change, Nepal will only see the contributors to hunger, disease, and conflict increase.

Read the [complete blog here](#).

UPCOMING EVENTS IN MAY



INSIDE USAID/NEPAL



HIGH SPIRIT AWARD OF THE MONTH:

FUNQMA FUDONG

In appreciation for creative energy in telling the story of USAID and its programs in Nepal

From Field to Lab: Genetics of Bengal Tigers in Nepal

The conservation of Bengal Tigers, a highly endangered species, is a top priority in Nepal and the South Asian region. Nepal is considered to be a source and transit point of poaching and illegal trade of wildlife. An estimated 121 adult Bengal Tigers are known to inhabit four protected areas of the Terai Arc Landscape of Nepal: the Chitwan population (Parsa Wildlife Reserve & Chitwan National Park), the Bardia population (Bardia National Park) and the Suklaphanta population (Suklaphanta Wildlife Reserve). The Government of Nepal (GON) has an ambitious goal of doubling this number by 2022.

USAID/Nepal has joined the quest of the GON to conserve the Bengal Tigers by launching a new conservation program in Nepal - a two-year research project entitled **the Nepal Tiger Genome Project** (NTGP) that aims to develop genomic based tools to introduce latest technology in addressing many

challenges of tiger conservation in Nepal. It is employing a scientific and conservation friendly method of extracting DNA of tigers from non-invasively collected scat samples. Findings of this research are expected to facilitate a better understanding of landscape level genetics of tiger species and aid in designing effective conservation policies and strategies at local, national, and international levels.

The Center for Molecular Dynamics Nepal (CMDN) is implementing this USAID-funded NTGP in the Terai Arc Landscape- one of the limited tiger habitats remaining on Earth. The Nepal Tiger Genome Project is working in close partnership with Government agencies, international and national institutions and non-government organizations. After its launch in Chitwan National Park, this project has helped train laboratory and field based Nepali researchers on conservation genetics and field biology in the US and Nepal. A bioinformatics

suite was set up within CMDN facility for central data entry, archiving and analysis.

Trained field staffs have collected more than 1000 scat samples in the first phase of sample collection. This project will help build Nepal's first Bengal tiger genetic database. NTGP is a good example of introducing innovative technology for conservation of endangered species in Nepal and help set up a good model for the development of science and technology in Nepal.

Photos: CMDN/WWF



NEWS IN BRIEF - April 2012

First Refractive Surgery Unit in Nepal at Tilganga Institute of Ophthalmology: On World Health Day, April 7, 2012, USAID/Nepal joined hands with the Tilganga Eye Center, recognized worldwide for its excellent and affordable eye care services and also as a highly advanced research and training institute, to celebrate the launch of its new Refractive Surgery Unit. From 2003 to 2009, USAID through U.S. Government's American Schools and Hospitals Abroad program (ASHA) provided assistance of \$3.9 million to build and equip the Tilganga Institute of Ophthalmology, an expanded wing of the Eye Center. The Refractive Surgery Unit, the first of its kind in Nepal, is the newest addition to Tilganga's expanded suite of products and services established with support from USAID. In Nepal, there are more than five million people from young children to the elderly suffering from the Refractive error disease. The cure or treatment is as simple as the prescription of glasses, contact lens, or permanent laser refractive surgery to correct their vision. The establishment of Nepal's first Refractive Surgery service will contribute significantly towards the quality of those Nepali lives suffering from this disease.



National Vitamin A Supplementation/Distribution Program: The National Vitamin A Program (NVAP) was established by the Ministry of Health and Population in 1993 and expanded to all 75 of Nepal's districts by 2003. The program receives financial and technical support from USAID, UNICEF and AusAIDS, and has been recognized as a model for successful multi-donor cooperation in Nepal. Under this program, all children 6 months to 5 years of age are eligible to receive high-dose vitamin A supplementation twice a year – in April and October (Baisakh and Kartik). This year's distribution program was observed by a Health team from USAID on April 18. Surveys conducted after each supplementation round have found coverage rates over 90% since the beginning of the program. This remarkably high coverage can be attributed, in particular, to the dedication and ability of Female Community Health Volunteers (FCHVs) who identify eligible children and provide them with vitamin A during each 2-day supplementation round throughout the country. FCHVs also conduct nutrition education to promote the consumption of vitamin A-rich foods, helping to reduce vitamin A deficiency in older children and in women of childbearing age, and to sustain the impact of capsule supplementation for younger children.

World Earth Day Commemoration: In celebration of World Earth Day 2012, USAID in partnership with WWF organized a two-week long social-media driven photo competition, Earth and YOU, to showcase facets of Nepal's experience in biodiversity conservation and the challenges it faces from climate hazards and to encourage urgent action on climate change. The competition saw almost 100 photo submissions in the two categories Hariyo Ban Nepal ko Dhan (Green Forests, Nepal's Wealth) and Climate Reality, and culminated with a photo exhibition at Siddhartha Art Gallery in Kathmandu on Earth Day where the winners were announced.



International Volunteers Week (Fostering Youth Role: Speeding Political Process): USAID, in partnership with local NGOs Association of Youth Organization Networks and Youth Initiative, organized a special youth outreach program designed to expand the civic and political engagement of the Nepali youth, from April 27 to 29. This three-day intensive residential youth assembly focused on the current democracy and governance issues, challenges, and opportunities afflicting the country's development progress. The program targeted young Nepalis from various sectors identified as influential leaders and change makers in their communities. The program's major objective was to identify these multiplier youth leaders in their respective fields and communities, bring them together in one platform, sharpen their leadership skills, equip and empower them with the tools, ideas, and networks necessary to start taking the initiative to bring about transformational change in their colleges, communities, and eventually in the larger country context.

Disaster Risk Reduction Workshops: The U. S. Embassy Kathmandu in collaboration with RISE, a non-governmental organization, organized a National Workshop on Disaster Preparedness and Management for Media in Dhuikhel on Thursday, April 26. The workshop was followed by an Earthquake Walk for the journalists in the New Road and Indra Chowk areas in the morning. The main objective of the training course was to enhance the reporting capacities of journalists by imparting essential disaster reporting skills and techniques and to make them proactive in raising awareness prior to a disaster. Similarly, in collaboration with the Blue Diamond Society, the U.S. Government's Disaster Risk Reduction Office organized a workshop on "How to Make Disaster Risk Reduction LGBTI-Inclusive" on Friday, April 27. The event was held at the Blue Diamond Society's Community Center in Dhumbarahi, Kathmandu. The goal of the half-day workshop was to bring stakeholders from the LGBTI (lesbian, gay, bisexual, transgender, and intersex) community and DRR community together to discuss how disaster planning and the provision of humanitarian assistance could be more LGBTI-inclusive.



1. Dipesh Shrestha

Scenic beauty of Khekuwa Besi seen from Khandbari:

At a time when Nepal is losing a lot of greenery due to rapid deforestation, this picture shows fresh green forest at Khekuwabesi of Sakhuwasaba. 'Hariyo Ban Nepal ko Dhan', meaning 'Healthy green forest, Nepal's wealth', sounds like a verse lost in distant history but there are still a few places in the eastern development region that reflect this saying of Nepal.



2. Gaurab Luitel

The Surviving Tree: This area used to be surrounded by forest once but today this particular tree is standing alone, probably waiting for its turn to get chopped. The picture was taken at Rampur, Chitwan and the area is under the ownership of Institute of Agriculture and Animal Science (IAAS). Locally called Switzerland, the area is now a cattle grazing ground.



3. Sandesh Timilsina

Tall and Proud Sal Trees: The 'Hariyo Ban Nepal ko Dhan' slogan came into being from the dense Shorea robusta (sal) forest of Terai. This is a sal forest in Nawalparasi District and is home to several birds and animals. Slowly the forest is thinning due to human settlement and is becoming confined to the few protected areas and community forests.

Hariyo Ban Nepal ko Dhan



In celebration of Earth Day on 22nd April, the Hariyo Ban Program, funded by USAID, organized a two-week long social media driven photo competition, Earth and YOU, to showcase facets of Nepal's journey in biodiversity conservation and the challenges it faces from climate hazards and to encourage urgent action on climate change. The competition saw almost 100 photo submissions in two categories - i) 'Hariyo Ban Nepal ko Dhan' depicting Nepal's forests and the sustainable benefits people derive from them for their livelihoods and wellbeing; ii) 'Climate reality' showing linkages between climate, people and nature, with pictures depicting climate hazards; vulnerability of people and nature to climate change; or climate adaptation solutions. The selected best photographs are currently being exhibited in Siddhartha Art Gallery, Babarmahal in Kathmandu. Here are the top three in each category.



1. Uttam Babu Shrestha

Searching Livelihood in the High Mountains: This picture was taken in Majphal VDC of Dolpa. This grassland (Patan) is managed by Toridwari Community Forest Users Group of Majphal VDC, Dolpa, Nepal. It provides several ecosystem services to the local people. They collect many species of medicinal plants from this grassland and graze their herds here. Needless to say, 'Yarsagumba' inhabits this grassland, the most expensive biological commodity on Earth, making it the major source of cash income in this area. The recent market price of Yarsagumba in China showed that it is more expensive than Gold.



2. Piyush Dahal

Drying Water Sources - Ponds to Water Tower! This photograph shows a small pond almost dried up in the Kaptad National Park, with the Saipal mountain range in the background. Due to changing climate conditions, such ponds and other water sources are drying up in the area. These ponds are important for the survival of wildlife. Local people report that wild animals used to drink from them but now are coming to nearby villages to quench their thirst. The water sources in upstream areas are also declining with rapid melting of glaciers as can be seen in the Saipal mountain range. This severely affects the wildlife and biodiversity in the area.



3. Gaurav Man Shrestha

Beautiful but with Little Snow: This photo was taken from Syangboche at sunset. I felt that this photo was very relevant to the changing climate realities; many of my friends also noticed when I shared it through social media sites, agreeing about the obvious signs of global warming resulting in snowless Mountains in Nepal.

Climate Reality